

LIMIT SWITCHES

























LIMIT SWITCHES

The firm, KAYCEE, a Group of **SALZER**, started in the year 1985 as SSI unit, located at Coimbatore, to manufacture special types of Limit Switches exclusively, to cater the requirements of M/s. Lakshmi Machine Works Ltd., for their various Textile frames and we have been very much successful in this venture.

In the year 1989, we have started manufacturing **KC 600 & KC 900** Series Limit Switches, for which there is a very good demand throughout India for various types of Machine Tools application. This made us popular throughout India especially in Plastic Injection Moulding Machine Manufacturers.

After enjoying the reputation, we have started manufacturing **KC 700** Series Limit Switches in the year 1992, which is Heavy Duty type mostly used in the mines, Steel Plant, Port Trusts and Heavy Engineering Industries. Here also we have got excellent response from our clients.

In 1993 we have entered into the market with **Foot switches** of Multi Ranges. We have also entered into the Export Market through M/s. Crompton Greave Ltd., Mumbai. We have also successfully consigned lot of consignments to various countries and repeat orders are coming regularly.

During the period 1995 we have developed the **Precision Limit switches**, (KC 1500 Series) which has also been accepted well by Textile/Printing industry and other machine tool industry.

KAYCEE Limit switches are designed to cut off power automatically at or near the limit of travel of a moving object controlled by electrical means. They are used in automatic control circuits where mechanical positions have to be translated into electrical signals for controlling remote Starters, contactors etc.

Our Limit switches have been tested in Central Power Research Institute (CPRI) Bangalore. All our Products are tested and approved by CSA (Canadian Standard Association) for Canada and USA. These products are Under Evaluation for UL Listing for USA.

We have a well pledged Tool room with Wire Cutting, Sparking and CNC Machining Facilities for Tool making.

We have our own In House Test Lab Setup During 1997.

We have also under the process of developing

- 1. Micro Adjustable limit Switches
- 2. Heavy duty and Explosion Proof limit switches for steel plants
- 3. Melamine Terminal Connectors
- 4. 2NO+2NC Limit Switches

KC 100, 200, 300 & 400 SERIES LIMIT SWITCHES

SALIENT FEATURES

KC 100 Series limit switches are designed to operate two circuits at a time with a single plunger. The operating head cannot be interchanged as the design is application dedicated. Transparent acrylic top cover allows inspection of the contacts.

KC 200 Series limit switches are compact type having 32mm width and offer complete interchangeability of the Enclosure and Actuator assembly throughout the series. A non-metalic plastic top cover is provided to avoid electric shock under abnormal conditions. These are oil tight and dust proof switches. In 200 Series all models are available in Snap and Normal action mechanisms.

KC 300 Series limit switches are Micro switches with pressure die-cast, Aluminium housing. The Operating Head cannot be interchanged as the design is application dedicated. These Series limit switches have a special type of leaf roller lever with 60mm Long. The operating travel is much less compared to other series switches.

KC 400 Series limit switches are designed for double action in which two plungers are provided, one on each side. The mechanism is maintained type in which NC Contacts will open with one side plunger actuation and will remain in this condition till next actuation force is applied from the opposite side. During the actuation, the NO contact will close and vice versa. Only one specially designed, application dedicated, single pole double throw change over contact model is available in this series.

KC 100 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTAC	T DETAILS	WIRING Diagram	TRAVEL (MM& DEGREE)	EXECUTION
KC 101H	Horizontal Roller Actuator	Snap Action	2 NO + 2 NC	0 0 0 0 0 2 3 5 6	1 - 2 4 - 5 1 - 3 4 - 6	24 51 45 45 40 40 40 40
KC 102V	Vertical Roller Actuator	Snap Action	2 NO + 2 NC	0 0 0 0 0 2 3 5 6	0 1 2 3 4 1-2 4-5 1-3 4-6	40 56 56 56 56 56 56 56 56 56 56 56 56 56
KC 103LS	Long Stem Horizontal Roller Actuator	Snap Action	2 NO +2 NC	0 0 0 0 0 2 3 5 6	0 1 2 3 4 5 6 1-2 4-5 1-3 4-6	010 010 010 010 010 010
KC 104B	Bellow Actuator	Snap Action	2 NO + 2 NC	1 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 3 4 5 5.5 1-2 4-6	13 45 45 45 45 45 45 45 45 45 45 45 45 45

KC 200 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT	DETAILS	WIRING DIAGRAM	TRAVEL (MM& DEGREE)	EXECUTION
KC 201	Ball Actuator	Snap Action	1 NO + 1 NC	3 4 0 1 2	0 1 2 3 4 5 5.5 1-2 3-4	Ø 5.9 Ø 5.4 Ø 0 27
KC 201N	Ball Actuator	Normal Action	1 NO + 1 NC		0 1 2 3 4 5 6	40 32
KC 202	Roller Actuator	Snap Action	1 NO + 1 NC	3 4	0 1 2 3 4 5 6	Ø 14 Ø 14 Ø 10 Ø 10
KC 202N	Roller Actuator	Normal Action	1 NO+ 1 NC		0 1 2 3 4 5 6	40 - 32 -
KC 203	Roller Lever Actuator	Snap Action	1 NO + 1 NO	3 4 0 0 1 2	0 1 2 3 4 5 5.5	0 13
KC 203N	Roller Lever Actuator	Normal Action	1 NO + 1 NC		0 1 2 3 4 5 6	127 32
KC 204	Slipping Roller Lever Actuator	Snap Action	1 NO + 1 NC	0 0 1 0 1 2	0 1 2 3 4 5 5.5	014 5-4 5-4 5-7 6-7
KC 204N	Slipping Roller Lever Actuator	Normal Action	1 NO + 1 NC	0 0 1 2 0 3 4	0 1 2 3 4 5 6	27 -10 - 10 - 32
KC 205	Rotating Roller Lever Actuator	Snap Action	1 NO + 1 NC	0 0 3 4 0 1 2	0° 10° 20° 30° 40° 50° 60° 1 - 2 3 - 4	5.4
KC 205N	Rotating Roller Lever Actuator	Normal Action	1 NO + 1 NC	0 0 0 3 4	0° 10° 20° 30° 40° 50° 60° 1 - 2	27 32
KC 206	Spring Needle Actuator	Snap Action	1 NO + 1 NC	3 4 4	0° 10° 20° 30° 1 - 2 3 - 4	7 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -
KC 206N	Spring Needle Actuator	Normal Action	1 NO + 1 NC	0 1 2 0 3 4	1 - 2 3 - 4	27 10 32

KC 200 SERIES LIMIT SWITCHES

KC 207/1	Angular Roller Lever Actuator (Right Side)	Snap Action	1NO + 1NC	0 3 4 0 0 1 2	0 1 2 3 4 5 5.5	32 014 5.4 \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	•
KC 207/1N	Angular Roller Lever Actuator (Right Side)	Normal Action	1NO + 1NC	0 0 2 0 3 4	0 1 2 3 4 5 6	27	10
KC 207/2	Angular Roller Lever Actuator (Left Side)	Snap Action	1NO + 1NC	0 0 3 4 0 1 2	0 1 2 3 4 5 5.5	32 014	6
KC 207/2N	Angular Roller Lever Actuator (Left Side)	Normal Action	1NO + 1NC	0 1 2 0 3 4	0 1 2 3 4 5 6 1-2 3-4	27	32
KC 208	Long Roller Lever Actuator	Snap Action	1NO + 1NC	0 0 3 4 0 1 2	0 1 2 3 4 5 10 11 12	36 Ø18 5.4 Ø19	5
KC 208N	Long Roller Lever Actuator	Normal Action	1NO + 1NC	1 2	0 1 2 3 4 5 10 11 12 1 2 3 4 5	27	10

KC 300 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT	DETAILS	WIRING Diagram	TRAVEL (MM & DEGREE)	EXECUTION
KC 301P (Old Code KC 302P)	Plunger Actuator	Snap Action	1NO +1 NC	COM (1) NC (1) NO (3)	0 1 2 3 4 1-2 3-4	18 M12x1 0 4.5 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
KC 302H (Old Code KC 301H)	Horizontal Roller Actuator	Snap Action	1NO + 1NC	COM (1) NC (2) NO (3)	1-2	4.5 M16 x 1.0
KC 302V (Old Code KC 301V)	Vertical Roller Actuator	Snap Action	1NO + 1NC	COM (1) O NC (2) NO (3)	0 1 2 3 4 1-2 1-3	0 4.5 M16 x 1.0

KC 300 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT DETAILS		WIRING DIAGRAM	TRAVEL (MM& DEGREE)	EXECUTION
KC 303	Angular Leaf Roller Lever Actuator	Snap Action	1 NO+1 NC	COM(1) NC (2) (3) NO	0 1 2 3 4 5 15 1617(Max) 1-2	018 04.5 09 82

KC 400 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT	DETAILS	WIRING DIAGRAM	TRAVEL (MM& DEGREE)	EXECUTION
KC 401	Double Plunger Actuator	Snap Action	1 NO+1 NC	1 2 0	0 1 2 3 4 5 6 7 0-1 0-2	14.5 28 90.1 15.5 15.5 15.5 15.5 15.5 15.5

TECHNICAL DATA AS PER STANDARD IEC 60947- 5-1 OF 1997 KC 100 SERIES KC 200 SERIES KC 300 SERIES KC 400 SERIES TECHNICAL DATA LIMIT SWITCHES LIMIT SWITCHES LIMIT SWITCHES LIMIT SWITCHES 4 Types of Operating 8 Types of Operating 4 Types of Operating Design **Double Action** Heads Heads Heads 2NO+2NC, Double 1NO+1NC, Single 1NO+1NC, Single 1NO+1NC, Single Pole, Double Throw, Pole Double Throw Pole, Double Throw, Pole, Double Throw, Contact Combination Single Break Single Break Single Break. Double Break **Snap Action** Snap / Normal Action Snap Action Snap Action Mechanism Current & Voltage Rating 5A, 250V AC 10A, 500V AC 10A, 440V AC 10A, 440V AC G 3/8 BSP - 3 Nos. 1/2" BSP- 1 No. Cable Entry 1/2" BSP - 1 No. G3/8 BSP - 2 Nos. or Pq 9 - 3 Nos. Pg 9 - 1 No. or M18x1.5 - 3 Nos. 2.5sq mm solid / stranded 2.5 sq.mm solid / stranded 2.5 sq.mm solid / stranded 2.5 sq.mm solid / stranded Terminal Capacity Conductors Conductors Conductors Conductors **Electrical Protection** IP4X for all 100 Series IP 65 for all 200 Series IP4X for all 300 Series IP4X for all 400 Series a) 900 Grams(max) for a)450 600Grams(max). KC 301 & KC 302 Operating Force 900 Grams (max) 450 - 600Grams(max). b)250 400Grams(max) b) 600 Grams(max) for for KC 206 & KC 208 KC 303 Aluminium Pressure Aluminium Pressure Aluminium Pressure Aluminium Pressure Housing Die Casting Die Casting Die Casting Die Casting Textile Machine such Textile Machines such Textile Machines such as Draw, Ring & speed as Comber, Draw Textile Machines such as Application as Comber, Blow Frames. Blow Room, Frame, Blow Room Speed Frame(LF 1400) Carding Comber & Room Machinery Doffer Machines & Carding Machines.

KC 600 SERIES LIMIT SWITCHES

SALIENT FEATURES

KC 600 Series Limit Switches are designed to having 34mm width, with specially designed head which rotates In steps of 90° in four directions and allows actuating rod from any of the 4 directions. The switches are actuated by push rod, normal roller lever, angular roller lever, crank lever etc. The roller is made of high grade wear resistant moulded phenolic material. In addition, Fork type in Line Rollers, Fork type Offset Rollers, 76mm Long Roller Lever and 32.0 to 82.5mm Adjustable Roller Lever Operating Heads are available with Steel Rollers for flexibility.

KC 600 Series Limit Switch Enclosures are interchangeable in types KC 601, KC 602, KC 603, KC 604, KC 607 and KC 608.

The Operating Heads of KC 600 Series Limit Switches Like Rotating Roller Lever, Fork Type in Line Rollers,

Fork Type Offset Rollers, 76mm Long Roller Lever are interchangeable with the enclosure for KC 605.

The Boxes and Actuator Assemblies of KC 606 and KC 609 are not interchangeable with the rest of the KC 600 Series.

KC 600 Series Limit Switches offers a variety of Degree of Protection from IPXX to IP65 and also a range of contact arrangement to provide operational flexibility and economics.

The Application area coverage of KC 600 Series Limit switches are Injection Moulding Machines, Hoists & Cranes Machine Tools, Textile Machines and SPM's.

KC 600 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT	DETAILS	WIRING Diagram	TRAVEL (MM& DEGREE)	EXECUTION
KC 600	Only Push Rod Operated, without Housing IP XX	Snap Action	1 NO + 1 NC	3 4	0 1 2 3 4 5 6 7 1-2 3-4	22 95 95 97 97 90 90 90 90 90 90 90 90 90 90
KC 600N		Normal Action	1 NO + 1 NC	1 2 3 4	0 1 2 3 4 5 6 7 8 1-2 3-4 3-4	Ø5 4.5
KC 600NE	Only Push Rod Operated, Without Housing	Extended Stroke	1 NO + 1 NC	1 2 3 4	3-4	1 2 9 9
KC 600NOL		Over Lapping	1 NO + 1 NC	1 2 3 4	0 1 2 3 4 5 6 7 1-2 3-4	3 4 30

Add suffix 'P' for Switches with Plastic Protective Covers for IP 4X protection ie. KC 600P, KC 600NP etc.,

KC 600 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT	DETAILS	WIRING DIAGRAM	TRAVEL (MM& DEGREE)	EXECUTION
KC 601		Snap Action	1 NO + 1 NC	0 0 3 4 0 1 2	0 1 2 3 4 5 6	40 0 7
KC 601N	In Die Cast Aluminium Housing, with Push Rod	Normal Action	1 NO + 1 NC		0 1 2 3 4 5 6 7 8	5.5
KC 601NE	Operated IP 65	Extended Stroke	1 NO + 1 NC	0 1 2 0 3 4	0 1 2 3 4 5 6 7 8	100
KC 601NOL		Over Lapping	1 NO + 1 NC		0 1 2 3 4 5 6 7	55
KC 602		Snap Action	1 NO + 1 NC	0 0 3 4 0 1 2	0 1 2 3 4 5 6	40 Ø 18
KC 602N	In Die Cast Aluminium Housing, with Horizontal	Normal Action	1 NO + 1 NC		0 1 2 3 4 5 6 7	5.5
KC 602NE	Roller Actuator	Extended Stroke	1 NO + 1 NC		0 1 2 3 4 5 6	227
KC 602NOL		Over Lapping	1 NO + 1 NC		1-2	55
KC 603		Snap Action	1 NO+1 NC	3 4 0 0 1 2	1-2	***************************************
KC 603N	In Diecast Aluminium Housing, With Normal Roller Lever Actuator	Normal Action	1 NO+1 NC	0 0 0 1 2 0 3 4	0 1 2 3 4 5 6 7 8 9	5.5
KC 603NE		Extended Stroke	1 NO+1 NC	0 0 1 2 0 3 4	0 1 2 3 4 5 6 7 8 9	
KC 603NOL		Over Lapping	1 NO+1 NC		0 1 2 3 4 5 6 7 8	55

KC 600 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT	DETAILS	WIRING DIAGRAM	TRAVEL (MM& DEGREE)	EXECUTION
KC 604	In Die Cast Aluminium Housing with	Snap Action	1 NO+1 NC	3 4 0 1 2	1-2	147
KC 604N	Slipping Roller Lever Actuator IP65	Normal Action	1 NO+1 NC		1 - 2 3 - 4	40
KC 605		Snap Action	1 NO+1 NC	3 4 0 1 2	0° 10° 20° 30° 40° 50° 60° 1 - 2	5.5
KC 605N	In Die Cast Aluminium Housing, with Rotating Roller Lever Actuator	Normal Action	1 NO+1 NC	1 2	0° 10° 20° 30° 40° 50° 60° 1 - 2 3 - 4	142
KC 605NOL	11 00	Over Lapping	1 NO+1 NC		0 10 20 30 40 50 1 - 2 3 - 4	55
KC 605F	In Diecast Alum. Housing,with Fork Type in line Roller Lever Actuator IP65	Snap Action	1 NO+1 NC	3 4 O O O O O O O O O O O O O O O O O O O	0° 10° 20° 30° 40° 50° 60° 1 - 2 3 - 4	40 40 5.5.5 13 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
KC 605FO	In Die cast Alum. Housing, with Fork Type Offset Roller Lever Actuator IP65	Snap Action	1 NO+1 NC	3 4 0 0 1 2	0° 10° 20° 30° 40° 50° 60° 1 - 2 3 - 4	255
KC 605L	In Diecast Aluminium Housing, With 76mm Rotating Roller Lever Actuator	Snap Action	1 NO+1 NC	0 3 4 0 1 2	0° 10° 20° 30° 40° 50° 60° 1 - 2 3 - 4	081
KC 605A	In Die Cast Aluminium Housing, with Rotating Adjustable Roller Lever IP 65	Snap Action	1 NO+1 NC	3 4 0 0 1 2	0° 10° 20° 30° 40° 50° 60° 1 - 2 3 - 4	94.5.145

KC 600 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT	DETAILS	WIRING DIAGRAM	TRAVEL (MM& DEGREE)	EXECUTION
KC 606	In Die Cast Aluminium Housing, with	Snap Action	1 NO + 1 NC	3 4	0° 10° 20° 30° 40° 50° 1 - 2 3 - 4	07 07 07 07 07 07 07 07 07 07 07 07 07 0
KC 606N	Spring Needle Actuator IP65	Normal Action	1 NO + 1 NC	1 2 O O O O O O O O O O O O O O O O O O O	0° 10° 20° 30° 40° 50° 1 - 2 3 - 4	28
KC 607		Snap Action	1 NO + 1 NC	0 3 4 0 1 2	0 1 2 3 4 5 6 7 8	022
KC 607N	In Die Cast Aluminium Housing, with	Normal Action	1 NO + 1 NC	0 0 0 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 3 4 5 6 7 8 9 10	99 5.5
KC 607NE	Angular Lever Actuator IP 65	Extended Stroke	1 NO + 1 NC		1-2 3-4	18
KC 607NOL		Over Lapping	1 NO + 1 NC		0 1 2 3 4 5 6 7 8 9	55
KC 608		Snap Action	1 NO + 1 NC	0 0 0 3 4 0 0 1 2	1-2	o19
KC 608N	In Die Cast Aluminium Housing, with	Normal Action	1 NO + 1 NC		0 1 2 3 4 5 6 7 8 1-2 3-4	55 5.5
KC 608NE	Long Roller Lever Actuator IP65	Extended Stroke	1 NO + 1 NC	0 1 2 0 3 4	0 1 2 3 4 5 6 7 8 9 10	40 2/2
KC 608NOL		Over Lapping	1 NO + 1 NC		1 - 2 3 - 4 5 6 11 12 13 14	55
KC 609		Snap Action	1 NO + 1 NC	0 0 3 4 0 1 2	0 1 2 3 4 5 6 7	40
KC 609N	In Die Cast Aluminium Housing, With Short Roller Lever Actuator	Normal Action	1 NO + 1 NC		0 1 2 3 4 5 6 7 8 9 10	03.50 04.50 04.50
KC 609NE		Extended Stroke	1 NO + 1 NC		0 1 2 3 11 12 13 14	7.5
KC 609NOL		Over Lapping	1 NO + 1 NC		0 1 2 3 4 5 6 7 8 9	56

KC 600 SERIES LIMIT SWITCHES

TECHNICAL DATA	KC 600 Series Limit Switches
Utilisation category	AC 15 and DC 13
Design	13 Types of Operating Heads
Contact Combination	1 NO+1NC, Single Pole, Double Throw, Double Break
Mechanism	Snap Action or Normal Action or Extended Stroke or Overla
Current & Voltage Rating	10A, 500V AC, or 10A, 600V DC
Thermal Current (Ith)	10A
Permissible Ambient Temperature	-40 Degree C to +85 Degree C
Frequency of Operation	6000 Cycles per hour
Mechanical Life	15 Million Switching Cycles
	Breaking Current (Amps.) 1 3 6 1
Contact Life AC	Switching Normal Action 15 5 2.5
	Cycles in Million Snap Action 11 4 1.8 0.
	AC 15 duty, ie at 40-60 Hz, P.F. of 0.3 (lag) to 1
	Voltage V (AC) Rated Operating Rated Making Current (Ie) Amps Capacity (Amps) Capacity (A
	NA SA NA SA NA
Making & Breaking Capacity	24 6 3 90 30 60 120 6 3 90 30 60
	240 6 3 90 30 60
	380 6 3 90 30 60
	480 4 3 90 30 60
	500 4 3 90 30 60
	NA = Normal Action SA = Snap Action
Cable Entry	M20 x 1.5-3 Nos or ½" NPT
Terminal Capacity	2.5 Sqmm Solid / Stranded Conductors
Protection	IP XX with Open Contacts, IP 4X with Protective Cover IP 43 with Aluminum Enclosure
110000011	IP 65 with Aluminum Enclosure incorporating Seals
Operating Force	600 Grams to 1200 Grams
Housing	Aluminum Pressure Die Casting
Application	Injection Moulding Machines, Hoists & Cranes.Machine Too Textile Machines and SPM's

SPARES			
CONTACT BLOCK	COMPLETE BOX	OPERATING HEAD	OPERATING LEVER
KC 600	KC 601BH	KC 600NLR	KC 700L1
KC 600N	KC 605BH	KC 600SLR	KC 700L2
KC 600NE	KC 607BH	KC 600ALR	KC 700LA
KC 600NOL	KC 609BH	KC 600AR	KC 700LF & KC 700LFO

Add suffix before B "N" for Normal action contacts, "NE" for Extentded stroke contacts, "NOL" for Overlapping Contacts

KC 700 SERIES LIMIT SWITCHES

SALIENT FEATURES

KC 700 Series limit switches with "Set Back" head design and with Shorter, Stronger mounting screws to provide greater structural rigidity between the operating head and the switch. The Aluminium pressure die cast enclosure adds to the strength and this range is able to handle higher operating force.

KC700 Series Limit Switches are completely oil tight, water tight and dust proof, with a shaft seal between the lever and the head. Internal seal between the head and the enclosure and an external seal between the cover and the body.

The Contact structure has solid thermoplastic barriers between terminals to prevent short circuiting. Terminals have ample wiring space for easier wiring and are serrated to give a firm grip to the straight wire. The complete unit can be removed and replaced without the risk of changing the operating characteristics of the limit switches.

KC700 Series Limit Switches are available with a variety of operating heads to meet various applications. Rotary Lever and Fork lever operating heads may be used on maintained type contacts.

The Application area coverage of 700 Series Limit switches are Injection Moulding Machines, Hoists & Cranes. Machine Tools, Textile Machines and Conveyors.

KC CODE	DESIGN	CONTACT		WIRING Diagram	TRAVEL (MM& DEGREE)	EXECUTION
KC 701	Top Plunger (Push button Adjustable) Spring Return	Snap Action	INO+INC	15 — 18 15 — 16	0 1 2 3 4 5 6 15-16	8.0(max. Adj.) 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0
KC 702	Top Push Roller Spring Return	Snap Action	INO+INC	15 — 18 15 — 16	0 1 2 3 4 5 6 15-16	900 90 90 90 90 90 90 90 90 90 90 90 90
KC 703	Side Plunger (Push Button Adjustable) Spring Return	Snap Action	INO+INC	15 — 18 15 — 16	0 1 2 3 4 5 15 - 16 15 - 18	39.7 39.7 10 10 10 10 10 10 10 10 10 10
KC 704	Side Push Roller Spring Return	Snap Action	INO+INC	15 — 18 15 — 16	0 1 2 3 4 5 15 - 16 15 - 18	20 45 08 9 × 06 44

KC 700 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT	DETAILS	WIRING DIAGRAM	TRAVEL (MM& DEGREE)	EXECUTION
KC 705	38 mm Long, Rotating Roller Lever Spring Return	Snap Action	INO+INC	15 18	15 - 18	<u>85</u>
KC 705M	38 mm Long, Rotating Roller Lever Maintained	Snap Action	INO+INC	15 18 15 16	0° 10° 20° 30° 40° 50° 70° 80° 90° 15 - 16 15 - 18	5.4
KC 706/1	Nylon Cat Whisker Spring Return	Snap Action	INO+INC	15 — 18 15 — 16	0 10 20 30 15 - 16 15 - 18	907 90 90 90 90 90 90 90 90 90 90
KC 706/2	Steel Cat Whisker Spring Return	Snap Action	INO+INC	15 — 18 15 — 16	15 - 18 12°	\$51.52
KC 706/2M	Steel Cat Whisker Maintained	Snap Action	INO+INC	15 — 18	0° 10° 20° 30° 40° 50° 70° 80° 90° 15 - 18	92 88 88 99 99 99 99 99 99 99 99 99 99 99
KC 707/1	Fork Type Inline Roller Lever Spring Retyrurn	Snap Action	INO+INC	15 — 18 15 — 16	15 - 16 15 - 18	53.8
KC 707/1M	Fork Type Inline Roller Lever Maintained	Snap Action	INO+INC	15 — 18 15 — 16	0° 10° 20° 30° 40° 50° 70° 80° 90° 15 - 16	5.4

KC 700 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT	DETAILS	WIRING Diagram	TRAVEL (MM& DEGREE)	EXECUTION
KC 707/2	Fork Type Offset Roller Lever Spring Return	Snap Action	INO+INC	15 — 18	0° 10° 20° 30° 40° 50° 15 - 16 15 - 18	53.8
KC 707/2M	Fork Type Offset Roller Lever maintained	Snap Action	INO+INC	15 — 18	0° 10° 20° 30° 40° 50° 70° 80° 90° 15 - 16	9 5.4 9 30 40
KC 708	76mm Long Rotating Roller Lever Spring Return	Snap Action	INO+INC	15 — 18	0° 10° 20° 30° 40° 50° 15 - 16 15 - 18	
KC 708M	76mm Long Long Roller Lever Maintianed	Snap Action	INO+INC	15 16	0° 10° 20° 30° 40° 50° 70° 80° 90° 15 - 16	% -5.4 -6.4 -6.4 -6.4 -6.4 -6.4 -6.4 -6.4 -6
KC 709	Rotating Adjustable Roller Lever (32mm-82.5mm) Spring Return	Snap Action	INO+INC	15 — 18	0° 10° 20° 30° 40° 50° 15 - 16 15 - 18	138 - 188.5
KC 709M	Rotating Adjustable Roller Lever (32mm-82.5mm) Maintained	Snap Action	INO+INC	15 18	0° 10° 20° 30° 40° 50° 70° 80° 90° 15 - 18	30 40

TECHNICAL DATA AS PER STANDARD	IEC 60947-5-1 OF 1997		
Technical Data	KC 700 Series Limit Switches		
Design	11 Types of Operating Heads		
Contact Combination	1NO+1NC, Single Pole, Double Throw, Double Break		
Mechanism	Snap Action		
Current & Voltage Rating	10A, 600V AC, 250V DC		
Utilization Category	AC15 and DC 13 as per IEC 60947-5-1 of 1997		
Thernal Current (Ith)	10A		
Insulation Voltage	600V AC, 250V DC		
AC 15 Rating	6A at 120V, 3A at 240V, 1.5A at 480V, 1.2A at 6000V		
DC 13 Rating	0.5A at 125V, 0.3A at 250V		
Frequency of Operation	2500 operations per hour		
Mechanical Life	20 x 10 ⁶ Operations		
Cable Entry	¾" UNF - 1 No.		
Terminal Capacity	2.5 Sqmm Solid / Stranded		
Protection	IP 65 for all 700 Series		
Housing	Auminium Pressure Die Casting		
Operating Force	0.285 Kg. KC 706/1 0.500 Kg. KC 705M, KC 707/2M, KC 708M, KC 709M, KC 706/2M 1.000 Kg. KC 705, KC 706/2, KC 707/1, KC 707/2, KC 708, KC 709 2.000 Kg. KC 701, KC 702, KC 703, KC 704		
Application	Injection Moulding Machines, Hoists & Cranes. Machine Tools, Textile Machines and Conveyers.		

KC 900 SERIES LIMIT SWITCHES

SALIENT FEATURES

KC 900 Series limit switches are designed to having 34mm width, Heavy Duty Range in Aluminium Pressure die cast enclosures.

KC 900 Series Limit switches are available in Two type of contact element are 1NO+2NC and 2NO+1NC with 3 sets of contacts.

KC 900 Series Limit Switches Enclosure and actuator assembly are interchangeable for Models KC 901N-1A, KC 901N-3A and PC901N-7A.

KC900 Series Limit Switch Operating Heads are Normal Roller Lever, Angular Roller Lever and Heavy duty Horizontal Roller.

KC900 Series Limit Switches offers a variety of Degree of Protection from IPXX to IP 65.

KC CODE	DESIGN	CONTACT	DETAILS	WIRING Diagram	TRAVEL (MM& DEGREE)	EXECUTION
KC 901N	Only Push Rod Operated, No Aluminium Housing	Normal Action	1 NO + 2 NC	0 1 2 0 4 0 6	0 1 2 3 4 5 6 7 1-2 3-4 5-6	22 4.5 7 1 2
KC 901NOL	IP XX	Over Lapping	1 NO + 2 NC	0 1 2 0 4 0 6	0 1 2 3 4 5 6 1-2 3-4 5-6	3 4 5 6 31.5
KC 902N	Only Push Rod Operated, No Aluminium Housing	Normal Action	2 NO + 1 NC		1 · 2 3 4 5 6 7 1 · 2 3 · 4 5 6 7 5 · 6	22 05 4.5 70 1 2
KC 902NOL	IPXX	Over Lapping	2 NO + 1 NC		0 1 2 3 4 5 6 1-2 3-4 5-6	3 4 5 6 31.5
KC 901N-1A		Normal Action	1 NO + 2 NC	0 1 2 0 4 0 6	0 1 2 3 4 5 6 7 1 - 2 3 - 4 5 - 6	Ø 5 da -
KC 901N-1AOL	Complete in Die Cast Aluminium Housing	Over Lapping	1 NO + 2 NC	Q Q Q Q Q Q Q Q Q Q	1 - 2 3 - 4 5 - 6	904.5
KC 902N-1A	Push Rod Operated IP 43	Normal Action	2 NO + 1 NC	0 0 1 0 3 4 0 5	1 - 2 3 4 5 6 7 1 - 2 3 - 4 5 - 6 7	
KC 902N-1AOL		Over Lapping	2 NO + 1 NC	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 3 4 5 6 1 - 2 3 - 4 5 - 6	56

KC 900 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTA	CT DETAILS	WIRING Diagram	TRAVEL (MM & DEGREE)	EXECUTION
KC 901N-3A		Normal Action	1 NO + 2 NC	0 1 2 0 4 0 6	0 1 2 3 4 5 6 7 8 9 1-2 3-4 5-6	022
KC 901N-3AOL	Complete in Die Cast Aluminium Housing With Normal Roller Lever	Over Lapping	1 NO + 2 NC	0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 3 4 5 6 7 1 - 2 3 - 4 5 - 6	99 04.5
KC 902N-3A	Actuator IP 43	Normal Action	2 NO + 1 NC	0 1 2 0 0 3 4 0 6	0 1 2 3 4 5 6 7 8 9 1-2 3-4 5-6	801
KC 902N-3AOL	11 40	Over Lapping	2 NO + 1 NC	0 0 0 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 3 4 5 6 7 1 - 2 3 - 4 5 - 6	56
KC 901N-7A	Angular Roller Lever Actuator	Normal Action	1 NO + 2 NC	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 3 4 5 6 7 1-2 3-4 5-6	43.5
KC 901N-7AOL	IP43	Over Lapping	1 NO + 2 NC	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 3 4 5 6 1-2 3-4 5-6	94.5
KC 902N-7A	Angular Roller Lever Actuator	Normal Action	2 NO + 1 NC	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 3 4 5 6 7 1 · 2 3 · 4 5 · 6	
KC 902N-7AOL	IP43	Over Lapping	2 NO + 1 NC	Q Q Q Q Q Q Q Q Q Q	0 1 2 3 4 5 6 1-2 3-4 5-6	56
KC 901N-10A	Complete in Die.	Normal Action	1 NO + 2 NC	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 3 4 5 6 7 8 9 1 - 2 3 - 4 5 - 6	ø 13.0
KC 901N-10AOL	Cast Aluminium Housing with Horizontal Roller Actuator (Heave Duty)	Over Lapping	1 NO + 2 NC	Q 2 2 3 4 0 6 6	0 1 2 3 4 5 6 7	40 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
KC 902N-10A		Normal Action	2 NO + 1 NC	0 1 2 0 4 0 4 0 8	0 1 2 3 4 5 6 7 8 9 1 - 2 3 - 4 5 - 6	000
KC 902N-10AOL	IP 43	Over Lapping	2 NO + 1 NC	0 1 2 0 0 3 4 0 6	0 1 2 3 4 5 6 7 1-2 3-4 5-6	56

SPARES			
CONTACT BLOCK CODE NO.	COMPLETE BOX CODE NO.	OPERATING HEAD CODE NO.	
KC 901N	KC 901NB	KC 600NLR	
KC 902N	KC 902NB	(Normal Roller Lever)	
KC 901NOL	KC 901NOLB	KC 600ALR	
KC 902NOL	KC 902NOLB	(Angular Roller Lever)	

KC 900 SERIES LIMIT SWITCHES

ECHNICAL DATA AS PER STANDARD IEC 60947-5-1 OF 1997						
TECHNICAL DATA	KC 900 SERIES LIMIT SWITCHES					
Design	4 Types of Operating Heads					
Contact Combination	1 NO+2NC, 2NO+1NC					
Mechanism	Normal Action or Overlapping					
Current & Voltage Rating	10A, 500V AC					
Thermal Current (Ith)	10A					
Permissible Ambient Temperature	-40 Degree C to 85 Degree C					
Frequency of Operation	6000 Cycles per hour					
Mechanical Life	15 Million Operations					
Contact Life AC	Breaking Current Amps. 1 3 6 10					
	Switching Cycles in Million Normal Action 15 25 5 1					
	AC 15 Duty ie 40-60 HZ, P.F. of 0.3 log to 1					
	Operating Voltage V Rated Operating Current (le) Amps Normal Action Rated Making Capacity (Amp) Normal Action Normal Action					
Making and Breaking capacity	24 6 90 60					
	120 6 90 60					
	240 6 90 60					
	380 6 90 60					
	480 4 90 60					
	500 4 90 60					
Cable Entry	½" BSP & M20 x 1.5					
Terminal Capacity	2.5 Sqmm Solid / Stranded Conductors					
Protection	IP XX with Open Contacts					
	IP 4X with Protective Cover					
	IP 43 with Aluminum Enclosure					
Operating Force 750 Grams to 1000 Grams						
Housing	Aluminum Die Casting					
Application	Injection Moulding Machines, Hoists & Cranes.Machine Tools, Textile Machines and Conveyers.					

KC 1500 SERIES LIMIT SWITCHES

KC 1500 Series Precision Limit Switches available in 16 types are compact, reliable durable and accurate having 1NO+1NC (Single Pole) and 2 NO+2NC (Double pole) change over contacts to facilitate selection and application for your specific needs.

SALIENT FEATURES

Movable contact assembly with two coiled springs provides quick make and quick break action.

Absence of zero contact pressure ensures not-teasing action even with an extremely slow operation motion.

Light weight phosphor bronze contact carrier with silver contacts, assure long life on high load applications.

Silver contacts, definite wiping action and high contact pressure assure reliability on dry circuit applications.

Phenolic moulded case provides great physical strength, high arc resisting capacity and semi dust proofness.

High degree of versatility as wide variety of operating heads available with individual mounting.

Push Button Plunger

The oil tight constructed plunger mechanism prevents any ingress of oil including coolant. The position of switch mounting is adjustable with the two lock nuts provided.

Roller Plunger

The Similar oil tight constructed roller plunger either inline with the contact block or right angles to it, allows the cam or any other devices to operate in any of the four directions.

Roller Lever

Roller Lever with a steel roller mounted on either top and right hand side or top and left hand side provides operation in both sides.

Six Inch Lever

Operators provide either top and right hand mounting or top and left hand mounting. The lever may be cut or bent to any desired length or shape to satisfy the user requirements.

KC CODE	DESIGN	CONTACT	DETAILS	WIRING DIAGRAM	TRAVEL (MM& DEGREE)	EXECUTION
KC 1500-1A	Only Contact Block without Operator	Snap Action	1NO + 1NC	A 0 0 B 0	0 1 2 3 4 A B	\$ 54 63
KC 1500-2A	Dust Proof	Snap Action	2NO + 2NC	1B 1A 2A 2B	0 1 2 3 4 1A-2A 1B-2B	54 63
KC 1501-1A	Top Push Button Operator	Snap Action	1NO + 1NC	A 0 0 B 0 0	0 1 2 3 4 5 6 A B	6.3(min) 8 Seating 1 Seating 1 Nin 2 x 1.0 1 COCK WASHER
KC 1501-2A	IP 65 From The Top	Snap Action	2NO + 2NC	1B 1A 2A 2B	0 1 2 3 4 5 6 1A-2A 1B-2B	54 63

KC 1500 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTAC	T DETAILS	WIRING Diagram	TRAVEL (MM& DEGREE)	EXECUTION
KC 1502-1AH	Top Push Roller Operator Horizontal	Snap Action	1NO + 1NC	A 0 0 B 0 0	0 1 2 3 4 5 6 A B	SEALING M12 x 1.0 RING WASHER LOCK WASHER
KC 1502-2AH	IP 65 From The Top	Snap Action	2NO + 2NC	1B 1A 2A 2B	0 1 2 3 4 5 6 1A-2A 1B-2B	54 63
KC 1502-1AV	Top Push Roller Operator Vertical	Snap Action	1NO + 1NC	A 0 0 B 0 0	0 1 2 3 4 5 6 A B	LOCK NUT M12x1.0 Sealing Ring Washer E Ring Washer
KC 1502-2AV	IP 65 From The Top	Snap Action	2NO + 2NC	1B 1A 2A 2B	0 1 2 3 4 5 6 1A-2A 1B-2B	54 63
KC 1503-1AL	Roller Lever Operator Left Hand Mounting	Snap Action	1NO + 1NC	A 0 0 B 0	0 1 2 3 4 5 6 7 9.5 A	40.8
KC 1503-2AL	IP 4X From The Top	Snap Action	2NO + 2NC	1B 1A 2A 2B	1A-2A 1B-2B	58.8 21 21 64 - 4nos Mtg. Hole
KC 1503-1AR	Roller Lever Operator Right Hand Mounting	Snap Action	1NO + 1NC	A O B O	0 1 2 3 4 5 6 7 9.5 A	2 2 2 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
KC 1503-2AR	IP 4X From The Top	Snap Action	2NO + 2NC	1B 1A 2A 2B	0 1 2 3 4 5 6 7 9.5 1A-2A	58.8 63 71.5 80 Mtg. Hole

KC 1500 SERIES LIMIT SWITCHES

KC CODE	DESIGN	CONTACT	DETAILS	WIRING Diagram	TRAVEL (MM& DEGREE)	EXECUTION
KC 1504-1AL	Six Inch Lever Operator Left Hand Mounting IP 4X From The Top	Snap Action	1NO + 1NC	A 0 0 B 0 0	0 2 4 6 8 16 18 20 33 A	1924
KC 1504-2AL		Snap Action	2NO + 2NC	1B 1A 2A 2B	0 2 4 6 8 16 18 20 33 1A-2A 1B-2B	58.8 2 21 21 64 4 4nos Mtg. Hole
KC 1504-1AR	Six Inch Lever Operator Right Hand Mounting IP 4X From The Top	Snap Action	1NO + 1NC	A 0 0 B 0 0	0 2 4 6 8 16 18 20 33 A	152.4
KC 1504-2AR		Snap Action	2NO + 2NC	1B 1A 2A 2B	0 2 4 6 8 16 18 20 33 1A-2A 1B-2B	56.8 63 71.5 80 Mtg. Hole

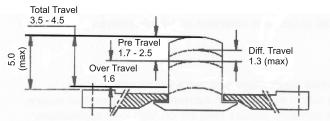
TECHNICAL DATA AS PER STANDARD IEC 60947-5-1 OF 1997

TEGINIONE DAIN NOTER GIANDARD TEG 00347-0-1 OF 1337					
Technical Data	KC 1500 Series Limit Switches				
Design	7 Types of Operating Heads				
Contact Combination	Single Pole - 1NO+1NC, Double Pole - 2NO+2NC				
Mechanism	Snap Action				
Electrical Rating	10A, 600 V AC				
Utilization Category	AC 15 and DC 13				
Frequency of Operation	2500 Operations / hours(Max)				
Terminal Capacity	2.5 sq.mm Solid / Stranded Conductors				
Electrical Protection	Dust Proof without operator IP 65 from the top for plunger type				
	IP 4X from the top for lever type				
Mechanical Life	20 Millions operations without operator & 10 Millions operations with operator				
Operating Force	0.400 Kg (min) & 0.600 Kg (max)				
Application	Machine Tools with different attachments, contact blocks for foot switche and contact blocks for micro adjustable limit switches				

KC 1500 SERIES LIMIT SWITCHES

OPERATIONAL CURRENT & VOLTAGE

AC 15 Rating	Single Pole	Double Pole	DC 13	Single	Double	Single	Double
	(1NO+1NC)	(2NO+2NC)	Rating	Throw	Throw	Throw	Throw
120 V 240 V 480 V 600 V	6.0 A 3.0 A 1.5 A 1.2 A	4.5 A 2.2 A 1.2 A 0.9 A	125 V 250 V 600 V	2.2 A 1.1 A 0.4 A	0.5 A 0.3 A 0.1 A	1.1 A 0.5 A 0.2 A	0.2 A 0.1 A



The repeat accuracy of individual switch rip point is such that after millions of operations they do not drift more than $0.01\,\mathrm{mm}$.

SELECTION CHART					
Description	Catalogue Code				
1NO + 1NC Contact Block	KC 1500-1A				
2NO + 2NC Contact Block	KC 1500-2A				
1NO + 1NC Contact Block with Top Push Button Operator	KC 1501-1A				
1NO + 1NC Contact Block with Top Push Roller Operator in-Line with Contact Block	KC 1502 - 1AH				
1NO + 1NC Contact Block with Top Push Roller Operator at Right angles to Contact Block	KC 1502 - 1AV				
1NO + 1NC Contact Block with Roller Lever Operator (Left Hand Mounting)	KC 1503 - 1AL				
1NO + 1NC Contact Block with Roller Lever Operator (Right Hand Mounting)	KC 1503 - 1AR				
1NO + 1NC Contact Block with 6 inch Lever Operator (Left Hand Mounting)	KC 1504 - 1AL				
1NO + 1NC Contact Block with 6 inch Lever Operator (Right Hand Mounting)	KC 1504 - 1AR				

SPARES

Operator assembly	Catalogue Code
Top push button Operator	KC 1500 TPB
Top Push roller assembled in line with contact block	KC 1500 TRH
Top push roller assembled at right angles to contact block	KC 1500 TRV
Roller lever, right hand mounting	KC 1500 RLR
Roller lever, left hand mounting	KC 1500 RLL
Six inch lever, right hand mounting	KC 1500 SLR
Six inch lever, left hand mounting	KC 1500 SLL

^{*} For Switches with 2NO + 2NC Contact Block replace with 2A instead of 1A to the Catalogue Code.

NOTE





Manufactured by:

KAYCEE INDUSTRIES LIMITED

Corporate Office: Old Kamani Chambers, 32, Ramjibhai Kamani Road,

Ballard Esate, Mumbai - 400 001

Tel.: +91-22-2261 3521 / 6666 3521 / 22 / 23

 $E\text{-mail}: sales@kayceeindustries.com \bullet Website: www.kayceeindustries.com$